

disease, colitis ulcerosa, Goodpasture syndrome, IgA nephropathy or IgA glomerulonephritis, myasthenia gravis, partial lipodystrophy, polymyositis, primary biliary cirrhosis, primary sclerosing cholangitis, progressive systemic sclerosis, recurrent pericarditis, relapsing polychondritis, rheumatoid arthritis, rheumatism, sarcoidosis, Sjögren's syndrome, SLE, splenic atrophy, type I (insulin-dependent) diabetes mellitus, diabetes mellitus of other types, Wegener granulomatosis, ulcerative colitis, vasculitis (both systemic and cutaneous), or vitiligo.

16. **(New)** Method as claimed in claim 13, wherein the autoimmune disease is associated with infertility, increased risk or abortions or reduced fetal growth.
17. **(New)** Comparative protein binding assay for differential diagnosis of autoimmune diseases comprising the detection of antibodies against transglutaminase, characterized in that the protein binding assay comprises at least two different transglutaminase antigens selected from tissue transglutaminase (TGc), TGk, Tge, TGx, FXIIIA and Band 4.2.
18. **(New)** Comparative protein binding assay as claimed in claim 17, comprising transglutaminase from different species.
19. **(New)** Comparative protein binding assay as claimed in any preceding claims 17 to 18 wherein the transglutaminase antigen is a recombinant fusion protein or fragment thereof.
20. **(New)** Comparative protein binding assay as claimed in any preceding claims 17 to 19, wherein the binding assay is an immunoassay selected from RIA,EIA/ELISA, LiA and FiA.
21. **(New)** Comparative protein binding assay as claimed in any preceding claims 17 to 20, wherein the binding assay is a sandwich-immunoassay selected from IRMA, IEMA/EUA, ILMA (immunoluminescence assay) and IFMA (immunofluorescence assay).